

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number  
**WO 2005/005797 A2**

(51) International Patent Classification<sup>7</sup>: **F01N 3/035**,  
3/20, 3/025, 3/08

ANDERSON, Mike [US/US]; 2817 106th Street West,  
Bloomington, MN 55431 (US).

(21) International Application Number:  
PCT/US2004/018536

(74) Agent: **BRUESS, Steven, C.**; Merchant & Could P.C.,  
P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

(22) International Filing Date: 10 June 2004 (10.06.2004)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/478,679 12 June 2003 (12.06.2003) US

(71) Applicant (*for all designated States except US*): **DON-ALDSON COMPANY, INC.** [US/US]; 1400 West 94th Street, P.O. Box 1299, Minneapolis, MN 55440-1299 (US).

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **HOU, Xhixin**, Jason [CN/US]; 2572 Oakridge Court, Maplewood, MN 55119 (US). **WAGNER, Wayne, M.** [US/US]; 120 Redwood Drive, Apple Valley, MN 55124 (US). **ZHANG, Wenzhong** [CN/US]; 13542 Foxberry Road, Savage, MN 55328 (US). **STEINBRUECK, Edward, A.** [US/US]; 16671 N. Hillcrest Court, Eden Prairie, MN 55346 (US). **ANGELO, Theodore, G.** [US/US]; 838 Idaho Avenue West, St. Paul, MN 55117 (US). **WIEGANDT, Ted, J.** [US/US]; 4126 Oakbrooke Curve, Eagan, MN 55112 (US).

**Published:**

— *without international search report and to be republished upon receipt of that report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: METHOD OF DISPENSING FUEL INTO TRANSIENT FLOW OF AN EXHAUST SYSTEM

(57) Abstract: A system or method for controlling the delivery of fuel into the transient flow of an exhaust system to control emissions. A mathematical model representative of the exhaust system can be used to determine, based on operating conditions of the exhaust system, a rate of fuel delivery suitable for achieving a desired result. The desired result can be to increase the temperature of a diesel particulate filter to a temperature suitable for regeneration without exceeding a temperature that may damage the diesel particulate filter.

WO 2005/005797 A2